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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,990	07/31/2001	David C. Parkes	YOR9-2001-0531 (8728-535)	3806

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EXAMINER	
OYEBISI, OJO O	

ART UNIT	PAPER NUMBER
3694	

MAIL DATE	DELIVERY MODE
01/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

AK

Office Action Summary	Application No.	Applicant(s)	
	09/918,990	PARKES ET AL.	
	Examiner	Art Unit	
	OJO O. OYEBISI	3694	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14,16 and 17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14, and 16-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/31/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/07 has been entered. In the RCE FILED on 10/31/07, the following have occurred: claims 1 and 8 have been amended and claims 1-14, 16 and 17 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 8-12, 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Hertz et al (Hertz hereinafter, PUB NO. 2001/0014868).

Re claims 1,8 16-17. Hertz discloses a method for computing payment discounts awarded to a plurality of winning agents in an exchange, said method comprising: computing a Vickrey discount to said plurality of winning agents in a cleared exchange as the difference between available surplus with all agents present minus available

surplus without said plurality of winning agents ; wherein the available surplus is a difference between an asked for payment from sellers and a bid payment from buyers, and wherein the winning agents are sellers and buyers are matched to one another, and computing said payment discounts by adjusting said Vickrey discounts so as to constrain said exchange to budget-balance (i.e., Then for each textual or associative attribute k, we may define the distance function d.sub.Vk(*,*), a version of d.sub.k(*.*) that is specialized to this shopper in that it uses shopper V's term weights or association weights w'.sub.Vk. Given these definitions, we may redefine d.sub.v(*,*) to use both the new attribute distance functions d.sub.Vk(*,*) together with the previously-discussed attribute weights w.sub.v, by taking a weighted combination of the two contributions. The weights w'.sub.Vk may be initialized by any of the methods described earlier for choosing term weights and association weights. They should always be adjusted immediately before the weights w.sub.Vk are adjusted, by replacing each weight w in each vector w'.sub.Vk with 11 w Vkj ' - b k e .times. P Xkj - S kj w Vkj ' - b k e .times. P Xkj - S kj, see pgs 17-18 paras 0186).

Re claims 2-3. Hertz further discloses the method wherein said adjusting step further comprises: minimizing said distance function under said budget-balance constraint and one or more bounding constraints, said distance function comprising a metric of the distance between said payment discounts and said Vickery discounts (see paras 0158, also see " let S be the search profile in the shopper's search profile set that is closest to offer profile P.sub.x, i.e., that minimizes the distance d(P.sub.x, S). Recall that S and P.sub.x can each be regarded as a numeric vector of offer attributes", see pg 17 paras

0184); deriving a parameterized payment rule for said distance function (i.e., parameterized offer, see paras 0246); determining an allowable range of parameters so as to maintain budget-balance (see fig.4 element 502); and selecting values for said parameters within said allowable range (see paras 0244).

Re claims 4-5. Hert further discloses the method wherein said bounding constraints comprises a constraint that said payment discounts be non-negative (i.e., The following provides another simple example of an estimation technique that has a presumption of no topical interest. Let g be a decreasing function from non-negative real numbers to non- negative real numbers, such as g(x)=e.sup.-x or g(x) =(x+1).sup.-k where k>0. Estimate topical interest f(U, X) with the following g-weighted average: f(U, X)=.SIGMA.g (d ((U, X) (V, Y))).about.f(V, Y), see paras 0172), see paras 0172).

Re claims 9-10. Hertz further discloses program storage device wherein said adjusting step further comprises: minimizing said distance function under said budget-balance constraint and one or more bounding constraints, said distance function comprising a metric of the distance between said payment discounts and said Vickery discounts (see paras 0158, also see " let S be the search profile in the shopper's search profile set that is closest to offer profile P.sub.x, i.e., that minimizes the distance d(P.sub.x, S). Recall that S and P.sub.x can each be regarded as a numeric vector of offer attributes", see pg 17 paras 0184); deriving a parameterized payment rule for said distance function (i.e., parameterized offer, see paras 0246); determining an allowable range of parameters so as to maintain budget-balance (see fig.4 element 502); and selecting values for said parameters within said allowable range (see paras 0244).

Re claims 11-12. Hertz further discloses the program storage device wherein said bounding constraints comprises a constraint that said payment discounts be non-negative (i.e., The following provides another simple example of an estimation technique that has a presumption of no topical interest. Let g be a decreasing function from non-negative real numbers to non-negative real numbers, such as g(x)=e.sup.-x or g(x) =(x+1).sup.-k where k>0. Estimate topical interest f(U, X) with the following g-weighted average: f(U, X)=.SIGMA.g (d ((U, X) (V, Y))).about.f(V, Y), see paras 0172), see paras 0172).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 6-7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hertz.

Re claim 6. Hertz does not explicitly disclose the method wherein said distance function is from one of

:L.sub.2(.DELTA.,.DELTA..sup.V)=(.SIGMA..sub.I(.DELTA..sub.I.sup.V-.D-ELTA..sub.I).sup.2).sup.1/2,L.sub..infin.(.DELTA.,.DELTA..sup.V)=max.sub.I-.vertline..DELTA..sub.I.sup.V-.DELTA..sub.I.vertline.,L.sub.RE(.DELTA.,.DE-LTA..sup.V)=.SIGMA..sub.I(.DELTA..sub.I.sup.V-.DELTA..sub.I)/.DELTA..sub.I-.sup.V,L.sub..pi.(.DELTA.,.DELTA..sup.V)=.PI..sub.I.DELTA..sub.I.sup.V/.DE-LTA.:sub.I,L.sub.RE2(.DELTA.,.DELTA..sup.V)=.SIGMA..sub.I(.DELTA..sub.I.su- p.V-.DELTA..sub.I).sup.2/.DELTA..sub.I.sup.V, andL.sub.RE(.DELTA.,.DELTA..-sup.V)=.SIGMA..sub.I.DELTA..sub.I.sup.V(.DELTA..sub.I.sup.V-.DELTA..sub.I)- .

However, official notice are taken that

"L.sub.2(.DELTA.,.DELTA..sup.V)=(.SIGMA..sub.I(.DELTA..sub.I.sup.V-.D-ELTA..sub.I).sup.2).sup.1/2,L.sub..infin.(.DELTA.,.DELTA..sup.V)=max.sub.I-.vertline..DELTA..sub.I.sup.V-.DELTA..sub.I.vertline.,L.sub.RE(.DELTA.,.DE-LTA..sup.V)=.SIGMA..sub.I(.DELTA..sub.I.sup.V-.DELTA..sub.I)/.DELTA..sub.I-.sup.V,L.sub..pi.(.DELTA.,.DELTA..sup.V)=.PI..sub.I.DELTA..sub.I.sup.V/.DE-LTA..sub.I,L.sub.RE2(.DELTA.,.DELTA..sup.V)=.SIGMA..sub.I(.DELTA..sub.I.su- p.V-.DELTA..sub.I).sup.2/.DELTA..sub.I.sup.V, andL.sub.RE(.DELTA.,.DELTA..-sup.V)=.SIGMA..sub.I.DELTA..sub.I.sup.V(.DELTA..sub.I.sup.V-.DELTA..sub.I)" are old and well-known mathematical notations in the art. Thus it would have been obvious to

one of ordinary skill in the art to incorporate these old and well-known mathematical notations into Hertz in order to maximize the payment discount.

Re claim 7. Hertz does not explicitly disclose the method, wherein said parameterized payment rule comprises: a Threshold Rule max(0,.DELTA..sub.I.sup.V-C), C.gtoreq.0 if said distance function is L.sub.2(.DELTA.,.DELTA..sup.V) or L.sub..infin.(.DELTA.,.DELTA..sup.V); a Small Rule .DELTA..sub.I.sup.V if .DELTA..sub.I.sup.V.ltoreq.C, C.gtoreq.0 if said distance function is L.sub.RE(.DELTA.,.DELTA..sup.V); a Reverse Rule min(.DELTA..sub.I.sup.V,C), C.gtoreq.0 if said distance function is L.sub..pi.(.DELTA.,.DELTA..sup.V); a Fractional Rule .mu..DELTA..sub.I.sup.V, 0.ltoreq..mu..gtoreq.1 if said distance function is L.sub.RE2(.DELTA.,.DELTA..sup.V); and a Large Rule .DELTA..sub.I.sup.V if .DELTA..sub.I.sup.V.gtoreq.C, C.gtoreq.0 if said distance function is L.sub.RE(.DELTA.,.DELTA..sup.V), where C is a given parameter. However, official notice is taken that the notations stated hereinabove are all well-known mathematical notations. Thus it would have been obvious to one of ordinary skill in the art to incorporate these old and well-known mathematical notations into Hertz in order to maximize the payment discount.

Re claim 13. Claim 13 recites similar limitations to claim 6 and thus rejected using the same art and rationale as in claim 6.

Re claim 14. Claim 14 recites similar limitations to claim 7 and thus rejected using the same art and rationale as in claim 7.

Response to Arguments

5. Applicant's arguments filed 07/05/2007 have been fully considered but they are not persuasive. The applicant argues in substance that the primary reference of record, Hertz fails to teach the limitation "computing a Vickrey discount to said plurality of winning agents as the difference between available surplus with all agents present minus available surplus without said plurality of winning agents." Contrary to the applicant's assertion, the examiner asserts that Hertz makes this disclosure i.e., for each textual or associative attribute k, we may define the distance function d.sub.Vk(*,*), a version of d.sub.k(*.*) that is specialized to this shopper in that it uses shopper V's term weights or association weights w'.sub.Vk. Given these definitions, we may redefine d.sub.v(*,*) to use both the new attribute distance functions d.sub.Vk(*,*) together with the previously-discussed attribute weights w.sub.v, by taking a weighted combination of the two contributions. The weights w'.sub.Vk may be initialized by any of the methods described earlier for choosing term weights and association weights. They should always be adjusted immediately before the weights w.sub.Vk are adjusted, by replacing each weight w in each vector w'.sub.Vk with 11 w Vkj ' - b k e .times. P Xkj - S kj w Vkj ' - b k e .times. P Xkj - S kj, see Hertz pgs 17-18 paras 0186).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OJO O. OYEBISI whose telephone number is (571)272-8298. The examiner can normally be reached on 8:30A.M-5:30P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAMES TRAMMELL can be reached on (571)272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

o.o

ELLA COLBERT
PRIMARY EXAMINER